ORIENTED MILITARY - PLANS - OPERATIONS - BUDGETS

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May, 1960

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PREFACE

My interest in military strategic planning and my recent exposure to the intricacies of the defense budget process induced this rather brief study of a fascinating, controversial and most complex subject.

This paper contains examples of current thinking of many prominent civilians and military officers in regard to military planning and the defense budget, plus some of my own ideas. Facts and ideas are set forth to indicate the interplay of the many forces and varied opinions in the military budget process.

As yet, no person, military or civilian, has been able to devise a precise procedure for establishing major military requirements and relating them to budget categories. Achieving such an utopia would lack congruity with our democratic processes established by the Constitution of the United States.

The ideas and suggestions set forth do not purport to be solutions. They are intended to be thought provoking and possible ways of providing additional facts to assist in the decision-making process.

My purpose is to stimulate the thinking of military officers who traditionally avoid, if possible, any involvement in the drab subject of budgeting--of interest only to fiscal officers--but now an important phase of military strategic planning and operations.

CHAPTER I

SITUATION

The strategic and tactical thinking and training of military officers, traditionally isolated from financial considerations, must be oriented to the facts of modern warfare interposed on our process of government, economic conditions and the federal budget.

Required

Conceptual procedures for developing sound military capabilities correlated with budgetary considerations to support our national objectives.

Assumptions

A future general war will provide no period of preparation or mobilization prior to commencement of hostilities.

The possibility of limited or local area wars will exist for an indefinite period of time.

Factors

A considerable portion of our strategic military planning, as pertains to financial considerations, is not feasible. Too big of a gap exists between planning and actual figures. More definitive military requirements are needed to develop defense budgets. It is also important to remember that the current year's budget shapes our military forces several years

in the future.

For military planners, considerations of new powerful weapons coupled with other aspects of technology transcends their past experiences. In addition, available resources must be divided among competing capabilities whose claims are never going to be satisfied. Professional military judgment must be oriented to new strategic factors reconciled with the budget.

In the present era, defense decisions are not necessarily based on military effectiveness, but for budgetary reasons.

Conflicting Statements Concerning Military Defense and the Budget

The great divergence of opinions on this subject, quite emphatically voiced by many responsible men, indicates a great need for careful review and evaluation of this most complex question of: How much defense can we afford?

Dr. Bernard Brodie, formerly a professor in international relations at Yale University and a former member of the faculty of the National War College, states in his book, Strategy In The Missile Age:

> The fact that a general war will be fought and swiftly decided with forces in being at the outset indicates that most of the important strategic decisions concerning that war must be made in the preceding period of peace.
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> . . . . . .
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> Because our security needs are essentially limitless while our resources are definitely limited, the categories of items which go to make up our national military establishment inevitably compete intensely with one another for funds. Moreover, this competition has to proceed in the marked absence of any clear, generally accepted guideposts for determining the apportionment of funds.
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> . . . . . .
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> The "war potential" of the economy of either side

> can have practically nothing to do with the outcome of the war, because that outcome will be decided before such potential is mobilized and absorbed into the military system.
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> The criterion of costs being "within reason" invokes a subjective judgment, but the requirement to reduce the vulnerability of the retaliatory force deserves such priority that if necessary certain other kinds of military expenditure should be sacrificed to it: secondly, there is no question that this country can afford, if it must, a much larger military budget than it has been accustomed to at this writing.[1]

Mr. Hanson Baldwin, prominent military writer for the New York Times, states:

> The problems of defense today are immense, some of them perhaps insoluble. The Administration, for instance, must determine not only how much money should go into defense, but also what kind of defense it should buy. No single mind, no military man or group of men can, or should make these decisions. The coming problem of how effectively the Navy's fleet of Polaris-firing nuclear submarines complement, as a sort of sea-going Strategic Air Command, the big bombers of the Air Force is one that must be decided by top-command civilian judgment. The unwillingness to make such decisions and to accept responsibility, after due advice from the nation's top-ranking military advisers, is one of the weaknesses of our present security establishment.[2]

Mr. George Fielding Eliot, well known nationally for his newspaper and magazine contributions, has recently written:

> Nor is it comforting to be informed by the recently retired Chief of Staff of the Army that "each year our military programs are projected forward by one more budgetary increment, following the same direction given by budgetary actions of years before. In the language of the missile makers, the programs proceed by <u>inertial guidance</u>, with little or no <u>command control</u> to reorient them to changed world conditions. Not

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[1] Bernard Brodie, <u>Strategy In The Missile Age</u> (Princeton: Princeton University Press, 1959), pp. 360, 364, 402, 394.

[2] Hanson W. Baldwin, <u>The Great Arms Race</u> (New York: Frederick A. Praeger, Publishers, 1958), p. 94.

only are these military programs ponderous and hence difficult to redirect, but there are powerful service and economic forces committed to the maintenance of their status quo."[3]

Today we are being told with increasing insistence that our nuclear-age problems cannot be judged by the criteria of the past. Everything is changed, everything turned up side down by the new weapons and the new time limits;such is the cry, and many have accepted it as gospel. A whole generation of pseudo-scientific students of war and military policy have seized upon the public ear. Not long ago, one of the more vocal of these prophets dismissed professional military opinion in words whose naive arrogance is captivating. "The scale of experience on which the expertise of most professionals has been formed has been almost completely overtaken by the new technology. . . . It has been hard for men trained in traditional patterns to adjust to this upheaval. As a result, much of the most fundamental thinking in the field of strategy is now done by scholars who, unencombered with an almost useless tradition, have sought to fill an intellectual void." (Henry A. Kissinger, writing in the New York Times Book Review, 27 September 1959).[4]

General Taylor, Chief of Staff of the U. S. Army from June 30, 1955 until his retirement in the spring of 1959, contends that weaknesses in the Joint Chiefs of Staff system have left the planning of our military strategy to civilian amateurs and the budget-makers. In his recent book, The Uncertain Trumpet, he stated:

Our military strategy today is a result of administrative and budgetary happenstance rather than of an analytical appraisal of our military requirements and of a scientific budget formulation directed at supporting these requirements with all the resources available for national defense.[5]

Another very pertinent consideration was most aptly

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[3]George Fielding Eliot, "The Fatal Virus of a Static Strategy," U. S. Naval Institute Proceedings, February 1960, p. 26.

[4]Ibid., p. 27.

[5]Maxwell D. Taylor, The Uncertain Trumpet (New York: Harper and Brothers, Publishers, 1960), p. 128.

stated by Lieutenant General Gavin, U. S. Army:

> Lobbies and pressure groups will use every means conceivable to cause the Department of Defense to invest in their obsolete weapons systems, and they will insist on a continued investment in those systems, even though the best interest of the country and the service concerned is not being served. They rationalize their point of view in terms of possible unemployment that may be caused by cancellation of orders.[6]

In our discussion of budgets, some mention of the high cost of weapons and systems should be made to indicate the level of spending under consideration. Although the following statement from War and Peace In The Space Age is two years old, it provides a good example.

> Speaking to a group of businessmen in Washington on March 4, 1958, Assistant Secretary of Defense W. J. McNeil said:
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> "These new weapons and equipment, the products of scientific and technological progress, are much more powerful and have much greater combat capability than the items they are replacing but they also cost a great deal more.
>
> The average cost per aircraft . . . has tripled over the last six or seven years. During World War II, for example, the cost of aircraft averaged about $10 a pound. For the very high performance aircraft to be delivered two or three years from now, the cost per pound will probably run from $70 to $80. The complexity of high performance combat aircraft may be measured by their cost per pound compared with the cost of silver which is less than $15 per pound.
>
> The heavy bomber at the end of World War II was the B-29 which cost about $600,000 each . . . the all jet B-52 intercontinental bomber costs about $8 million each."
>
> He went on to say that the most advanced type of aircraft now under experimentation, the X-15, would probably cost in excess of $100 million per plane. Comparable cost increase prevail in the missile field. For example an Atlas deployed will cost about $17.5 million, including a proportionate share of the fixed launching base cost. A short-range mobile missile, the Pershing, of about five hundred miles range will

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[6]James M. Gavin, War and Peace In The Space Age (New York: Harper and Brothers, Publishers, 1958), p. 256.

> cost one-half million dollars. Since it is generally agreed that we cannot exceed investing a certain amount of our gross national product in national defense without doing harm to the national economy, it becomes of overriding importance that we make our technical decisions well and that we make them quickly.[7]

The question of how strategic decisions are made and how the composition of supporting military forces are determined conjures varying opinions from many purportedly reliable sources.

> General Taylor has stated:
> . . . The Secretary of Defense, through the use of budgetary guidelines, has become the true artisan of our military strategy without necessarily foreseeing the end product. This setting of guidelines has not been an arbitrary action on his part, but one to which he has been impelled in carrying out the policies of the Executive branch of the government, especially the Bureau of the Budget. In the breakdown of the strategy-making machinery, he has felt obligated to get on with the business by establishing ground rules for budget formulation consistent with the expenditure targets of the Treasury. These ground rules have had the effect of shaping the military posture of the United States as it is today and as it will remain for years to come.[8]

Mr. Walter Lippman questions the qualifications of the Secretary of Defense to make decisions.

> But then we arrive at the real question. How are these great decisions to be made? It is all very well to say that they should be made by the Secretary of Defense. But Secretaries come and go. They are chosen from lists of politically available men. They come from banking, from law, from professional politics, from the automobile business and the soap business. How does a man who has spent the first fifty years of his life far away from strategic problems go into the Pentagon, hang up his hat, sit down at the Secretary's desk, and make the decisions which he is supposed to make?[9]

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[7] Ibid., p. 237.

[8] Taylor, op. cit., p. 122.

[9] Walter Lippman, New York Herald Tribune, May 8, 1958.

The Joint Strategic Objective Plan (JSOP) has been described by General Taylor, U. S. Army, as more a preview of the next budget squabble and less a document for mid-range strategic planning.

> The primary cause of failure has been the inability of the Chiefs to agree on the best combination of forces supportable by the financial outlays which the Secretary of Defense has considered feasible for planning. The JSOP was originally conceived as a document which would allow the Chiefs to estimate military requirements without prior consideration of budget ceilings. As a result, JSOP 60 would have required about $48 billion to implement and the later ones $55-$58 billion. Such forecasts were highly unsatisfactory to the Secretary of Defense, who either rejected such estimates or imposed fiscal ceilings to restrain what he considered Blue Sky planning. As a result, the JSOP has become more and more a preview of the next budget squabble and less and less a document for mid-range strategic planning.
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> . . . . . .
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> Considering the scope of the questions which the Joint Chiefs do consider, it is interesting to note some of the matters which they might be expected to consider but do not. The first of these is the defense budget, for which they have no agreed responsibility. Although charged with preparing and submitting to the Secretary of Defense statements of military requirements to be used in connection with the preparation of the defense budget, the Chiefs as a corporate body take no part in the budget's actual formulation. However, Secretary McElroy's action in referring the 1960 budget to the Chiefs suggests that the Secretary of Defense has come to feel more and more the need for the endorsement of the Chiefs of his final budget. Since these officers in the past have had insufficient knowledge of the overall defense budget to warrant an expression of competent opinion, renewed consideration may be expected to giving the Chiefs a more active role in budget-making. Without it, there is no discernible way to align military requirements, the military budget, and the service programs supported by the budget.[10]

An interesting example of how decisions are made in the Department of Defense with respect to a cut in funds is given by General Gavin:

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[10] Taylor, op. cit., pp. 91-92.

> But more troublesome than these seemingly trivial things was the constant pressure on funding. The technique was to suggest that another cut in funds, say 10 per cent across the board was due. When the critical harm that would result from such a cut was pointed out the reply was polite.
>
> "The Department of Defense understands how serious the situation is. We realize that you couldn't stand a further cut in either funds or personnel and still meet your obligations. But suppose you go back and think the thing over. Suppose you did have to take a cut, just suppose, how would you do it?"
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> A week later, or perhaps a few days, you would return with an outline of the implications of such a cut. After explaining it you would be greeted with:
>
> "That is very good. I am glad to see you think that way. The program that you have recommended is approved."
>
> Thus the burden of cutting is shifted to the Chief of Staff. If later there is occasion for a congressional query, and there always is, Congress is assured that the Chiefs of Staff recommended or concurred in the reduction. To inform Congress to the contrary would be insubordination; in fact the Department of the Army has issued specific instructions covering this point.[11]

Another very important and heretofore unmentioned group of men, who have a great influence in budget determinations, are the members of the United States Congress. They want to make a good record from the standpoint of appropriations and expenditures, but cannot afford to make it at the expense of the security of the country. And, members of Congress do not want to be maneuvered into the position of providing a lot of funds in the name of national defense that are really not needed. Not being military experts, they rely heavily on and try to adduce evidence from the Department of Defense to assist them in making top-level decisions.

A few pertinent sections from the 1960 Department of Defense Appropriation Hearings are contained in the following paragraphs. These, it is hoped, will indicate the scope of

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[11] Gavin, op. cit., p. 157.

questioning and the general thinking of some members of Congress on defense matters. The printed hearings of the Subcommittee of the Committee on Appropriations of both the House of Representatives and the United States Senate are a unique and valuable source of information concerning overall defense matters.

During the Department of Defense Appropriations, 1960 Hearings before the subcommittee on appropriations, Senator Symington made the following statement:

> Two members of the Joint Chiefs have said in their opinion we have too much strategic deterrent because we have the capability to destroy the possible enemy two or three times. General Taylor said that if you worked it out mathematically you would find we need hundreds of strategic weapons instead of the thousands we have. That was his testimony before the House Appropriations Committee. Admiral Burke in testifying before the same committee, said: "I think there is a rate of building up retaliatory capability which is greater than that which is necessary. I think that the retaliatory system should be examined very carefully with regard to such factors as accuracy, targeting, relative invulnerability and reaction time."[12]

General White, Chief of Staff, Headquarters USAF, replied as follows:

> I want to say that I categorically disagree with both Admiral Burke and General Taylor on this subject. I disagree not only with the philosophy which underlies their statements but I disagree also, of course, as to the quantitative forces that are involved.[13]

When testifying in regard to missile programs before the same subcommittee, Mr. W. J. McNeil, Assistant Secretary of Defense (Comptroller) stated:

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[12]U. S. Congress, Senate, Committee on Appropriations, Hearings Before Subcommittee of Senate Committee on Appropriations. Department of Defense Appropriations for 1960. 86th Cong., 1st Sess., 1959, p. 285.

[13]Ibid., p. 286.

I can understand perfectly well why people in your positions certainly must be confused when you hear conflicting stories from witnesses from different services on this missile business. I would hope before this committee completes its hearings on the procurement portion of the money bill that the departments present, and that you have the time to listen to, what I hope will be a clearer, better picture than we have apparently presented so far. I think you will probably find that there is a need for both missiles.

As I mentioned to Senator Symington a minute ago it is important that the scope of each program be pretty clearly outlined and determined how they fit together, before you consider the final action on the money bill or perhaps even the authorization. I don't believe this has been done; certainly it must not have been satisfactory to this committee.[14]

Later in the same hearings, Senator Symington made the following statement:

Senator Symington. I understand from the many talks the President has made the degree that he believes the question of money is important and the balancing of the budget is important and the dangers of inflation are important. I agree they are important.

But then why are we supporting six Air Forces and three Armies? The disagreement between the services seems to be at a new high today, and it is costing the American taxpayer many billions annually.

So I would like to ask this: Have you any plans for presenting a Pentagon reorganization plan that would make it possible to unify the services from the standpoint of getting more defense strength for the tax dollar?

Secretary McElroy. We have just been through a reorganization of the Department of Defense. My own opinion is that we had better let that one shake down before we propose another reorganization of the Department.[15]

During the Department of Defense hearings before the subcommittee of the committee on appropriations, House of Representatives, the following statements were made by the committee chairman, the Honorable George H. Mahon.

I have not had as much confidence as I should in the Joint Chiefs as an organization. I am always afraid

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[14] Ibid., p. 397. [15] Ibid., p. 1429.

> every service is trying to get everything that it can, and I am always worried about the effectiveness of the planning in the Joint Chiefs because of all these elements.
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>
> Upon whom can we rely? There is no one to whom the Congress can turn with complete assurance that we can get the right story. We do not have our own Chief of Staff and advisory group, so how are we to know? Somehow or other the Joint Chiefs of Staff, in my opinion, have not been able to function very effectively, though they are always good men.[16]

Again referring to the controversial issues in military problems and the need for increased responsibilities by the Joint Chiefs of Staff, Mr. Mahon said:

> They are not helping Congress and they are not helping the Secretary of Defense, and the American people are out on a limb insofar as knowing what to do and to think about these problems. The solution to these problems does not come easily, of course, and I have the feeling, which has been confirmed by the testimony here this morning, that the Joint Chiefs have not faced up to this situation. They have not kept their feet to the fire until they came to a decision as to the standards of sufficiency which should govern the size and composition of our defenses.[17]

Summary

Because of the importance of the subject being discussed, my setting forth opinions and statements of top-level civilians and military officers was deemed to be a definite requirement to establish substantial background facts.

In this introductory chapter, several basic considerations in the military planning/budget sphere of activity have been stated. There is unanimity of opinion as to the importance

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[16] U. S. Congress, House, Subcommittee of the Committee on Appropriations, Hearings, Department of Defense Appropriations for 1960, 86th Cong., 1st Sess., 1959, pp. 331-332.

[17] Ibid., p. 335.

of military strategic planning in the furtherance of our national objectives. Also, the constantly increasing importance of the federal budget and its effect on military strategy is clearly recognized.

The greatest divergence of opinions is in these decision areas:

How much defense can we afford?

What kind of defense should we have?

How military strategic planning can be effectively correlated with the budget by top-level civilians and military officers.

What to do

We need an expanded approach to military planning and budgeting--not necessarily a reorganization of the Department of Defense or the budget process, but oriented thinking and application of new ideas and tools for solving complex problems. An improved budget correlation with military requirements is possible. If achieved, it will assist the military in evaluations of what capabilities actually exist and assist civilian officials in reviewing the defense budget and in making defense decisions.

All concerned should increase their conceptual knowledge and overcome the existing tendency to pass the ball and to remain at the fringes waiting for others to initiate action and to make decisions.

The Joint Chiefs of Staff are faced with making vital decisions on the basis of an evaluation of a multiplicity of

conflicting factors replete with imponderables and hidden implications. Perhaps this decision process could be aided by the developing technique of "operations research"--the so-called "scientific approach" employing advanced mathematical techniques and electronic computers. It is recognized that this method does not, by any stretch of one's imagination, purport to solve the problems, but it should provide valuable and helpful information if purposefully employed.

The complexities of force requirements and programs to support the various military plans could be readily summarized in any desired combinations, including estimated cost figures. Once the basic force level(s) are determined, the services would be in a better position to develop the extent and cost of supporting elements.

The current trend of military services concentrating on individual forces and the Department of Defense applying too much effort on budgetary matters and good management practices results in neglecting the important end product--"Adequate and Effective Military Capabilities."

CHAPTER II

BASIS FOR MILITARY PLANNING AND BUDGETING

The President is responsible for over-all approval and implementation of our National Security Policy. In the annual budget of the United States Government, he presents his financial plan for meeting our national security objectives.

The National Security Council, The Secretary of Defense and the Joint Chiefs of Staff are the main advisors to the President in national security matters.

In budgeting functions, the Bureau of the Budget is the executive branch of the President's staff which assists in the formulation, review and management of the federal budget.

Levels of Defense Planning

Basic National Security Policy is developed in various parts of the government, but principally by the State, Defense and Treasury Departments. The ensuing broad policy paper approved by the National Security Council and the President provides guidelines for more detailed planning by the Joint Chiefs of Staff.

The following family of emergency and/or war plans is developed to provide for all foreseeable contingencies of national defense.

Current.--The Joint Strategic Capabilities Plan (JSCAP)

is the plan for fighting a war this year. It must be executed with forces currently available and hence is a capabilities plan.

Mid-range.--The Joint Strategic Objectives (JSOP) is developed for a future war commencing four to five years from now. Implementing forces for this plan are not firm, but are based on mobilization base objectives, anticipated new weapons and force levels as determined to a large degree by available funding. The plan establishes goals toward which the military services should direct their efforts.

Long-range.--The Joint Long-Range Strategic Estimate (JLRSE) is produced for the time interval eight to twelve years hence. Of necessity, this document is based on forecasts and the best possible estimates of the over-all strategic situation and new fighting capabilities produced by research and development.

How Effective Is Our Military Planning?

Lacking an effective yardstick for measurement and recognizing the problem of intangibles in this area, the following statements are presented for consideration.

Dr. Bernard Brodie, formerly a professor in international relations at Yale University and a former member of the faculty of the National War College, now a Senior Staff Member of the RAND Corporation recently stated:

> There exists in America no tradition of intellectual concern with that border area where military problems and political ones meet. Although ideally the military approach to strategic problems needs to be extended and leavened by the relevant insights of the statesmen, such insights are usually undeveloped among those civilian officials or politicians with whom the American military

actually have to deal. The civilian official in the State Department will rarely know much about current military problems and will therefore have no feeling for their relevance to the issues in his own jurisdiction. The National Security Council is for that and other reasons mostly a monument to an aspiration. The aspiration is undeniably sound, but whether any real enrichment of strategic thinking has proceeded from it is another question.[1]

Mr. Hanson W. Baldwin asserts:

The problem of our security organization is not so much an interservice problem as it is a civilian-military problem. Most, though not all, of the nation's military deficiencies today stem directly from civilian decisions. These include the major reductions in the military budgets between World War II and the Korean war, and the dominant "balanced-budget" philosophy of the Secretary of the Treasury and the Director of the Budget Bureau during President Eisenhower's first term.

For several years after the Joint Chiefs were established, they could get no clear-cut statement of national objectives from the National Security Council upon which to base strategic plans. Our overconcentration on the nuclear "massive retaliation" strategy was a product of National Security Council debate, foreign policy requirements, and President Eisenhower's decisions; it was not made in the Pentagon. In 1957 and in 1956, the nation's intelligence agencies repeatedly reported explicit evidence of numerous Soviet ballistic missile launchings, but no action was taken as a result of these reports; in fact civilian, not military, leaders cut budget requests that would have resulted in speeding our program. And, as a crowning irony, the much-publicized Gaither report--a report of a private group of citizens to the National Security Council--recommended that the administration spend the same increased budget on defense that the Joint Chiefs of Staff had urged futilely upon their civilian superiors earlier in 1957.[2]

The functioning of the National Security Council as described by Mr. George Fielding Eliot is:

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[1]Bernard Brodie, Strategy In The Missile Age (Princeton: Princeton University Press, 1959), p. 7.

[2]Hanson W. Baldwin, The Great Arms Race (New York: Frederick A. Praeger, Publishers, 1958), p. 83.

> In the National Security Council, the requirements of foreign policy, fiscal policy, and military policy must be reconciled. These requirements are, more often than not, sharply in conflict. The vigor of their respective advocates reflects not only personal ability in debate, but the skill with which each departmental case has been prepared in advance and steered through the long preliminaries at lower echelons of coordination before the final presentation, in which the President must unavoidably be the umpire and bear the heavy burden of ultimate decision. The men who take part in this debate are of varying experience in government. They are conditioned by these backgrounds, and the degree of their experience in government determines the extent to which they are dependent on their subordinates for effective performance.[3]

Another aspect of the planning problem has been described by General Maxwell D. Taylor, U. S. Army as:

> While the Department of Defense files periodic progress reports with the National Security Council, that body never gives a hard look at the actual condition and capability of our military forces at any one time. There is no consideration of the kind and amount of military force we are capable of exerting and its relation to the world-wide obligations which we might have to fulfill. Nowhere in the machinery of the government is there a procedure for checking military capability against political commitments or our forces in being against the requirements growing out of the approved "Basic National Security Policy."[4]

Numerous other statements have been made concerning the functioning of our country's national defense planning organization, however, the basic ideas are presented in the above quotations. Strategic planning difficulties stem from lack of a defined and accepted national objective toward which strategy can be oriented. After strategic plans are developed,

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[3]George Fielding Eliot, "The Uncertain Trumpet," U. S. Naval Institute Proceedings, May, 1958, p. 43.

[4]Maxwell D. Taylor, The Uncertain Trumpet (New York: Harper and Brothers, Publishers, 1960), p. 84.

no check of military capability against political commitments or of military forces in being to support requirements of effective plans is made.

As if these factors were not enough for military planners to contend with, another related and most important consideration is the constant pressure of budget restraints.

Dependence of Military Plans on Budgets and Civilian Judgment

There can be little disagreement that strategy and military planning are now, more than ever before, closely related to the federal budget and the effect of civilian judgment on defense/budget decisions, both within and outside the Department of Defense.

This statement can be substantiated by many prominent persons, both in military and civilian professions. A few of their views are contained in the following paragraphs.

Once again, Dr. Brodie:

> Strategy in peacetime is expressed largely in choices among weapons systems, which of course are not bought ready-made off the shelf but developed selectively by a process which itself involves heavy cost and many pitfalls. In making choices among weapons systems and related systems, like radar-warning networks, the military budget is always the major and omnipresent constraint. Thus in a book on strategy we are inevitably concerned with (a) how the size of the national defense budget is determined, and (b) what sorts of considerations determine choices within the limits set by the budget. Although in former times it may have been legitimate to neglect these questions in strategic discourse, in our era it is clearly no longer so.[5]

General Taylor came face to face with the budget problem in the spring of 1956 while a member of the Joint Chiefs of Staff.

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[5]Brodie, op. cit., p. 361.

> The Joint Chiefs were hardly back from Puerto Rico before the mounting costs of the long-range missiles and bomber programs exposed the conservatism of their estimates of future financial requirements. The concern over the snowballing of defense costs led to the next major conflict revolving around the military strategy. This clash occurred in the spring of 1956 in connection with the drafting by the Joint Chiefs of Staff of the "Joint Strategic Objectives Plan" (JSOP 60) for Fiscal Year 1960. This is the midrange planning document which undertakes to estimate force requirements four years in advance.
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> From the summer of 1956 on, the primary concern of the Department of Defense continued to be the mounting cost of the missile and heavy weapons programs, if carried forward as initially planned, would generate costs in subsequent years far beyond the level of feasible budgets.[6]

Mr. Hanson Baldwin provides a rather complete and interesting insight regarding the civilians in the Department of Defense--the contributions they make and their relationship in the military planning/budget process.

> But one of the main problems in the Pentagon is the tremendous civilian layer of bureaucracy that has been built up at the Department of Defense level and at individual service level. There are a total of thirty civilian secretaries, assistant secretaries, or their equivalent in the Pentagon who can give directives to the military chiefs of the services, even though most of these civilians have no legal responsibility. The basic law of sound organization--the coupling of authority with responsibility--has been broken in the Pentagon. What makes it worse is that virtually all of the senior civilians are political appointees, who know little about the military and who stay at their posts for only a brief time.
>
> Many of the assistant secretaries, deputy assistant secretaries, and senior civil servants who have entrenched themselves in positions of power in the Department of Defense try to formulate military policy in fields from medicine to personnel to strategy, and many of them actually interfere at the lowest levels of administration and operations in the service. The civilians have taken over many of the functions of command formerly vested in the military officer, and they exercise this authority without any co-equal responsibility for the results.

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[6] Taylor, op. cit., pp. 38, 47.

> Admiral Burke keeps on a table in his Pentagon office a long line of miniature flags, each the standard of one of the powerful, but little-known civilians who stands between him and the President of the United States. There are eleven in the Defense Department and six in the Navy. . . . Each of these principal civilians has deputies and numerous assistants, most of whom have the power to negate or delay, few of whom have the power to approve or expedite.
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> Nearly every proposed defense project impinges upon several, or all of the special fields of the numerous Assistant Secretaries of Defense, so that all kinds of cross-checking and "coordination" are necessary. The result sometimes, in the words of one authority, is like "punching a feather pillow"; you can get no solid result. There have been many instances of delays of many months in action on requests for urgent research projects, some of them involving only small sums. An official writes about the Navy: "There are decisions being made as to what missiles will go into certain programmed, newly constructed men-of-war. And who is making the decision? The Chief of the Bureau of Ordnance or the Chief of Naval Operations? Not at all, the Controller. Not on the basis of military effectiveness, but for budgetary reasons."
>
> The Department of Defense has grown into a tremendous civilian-dominated bureaucracy. It has gone far, indeed, from the original concept of a small policy-forming group superimposed on the separate services. Its thousands of employes do not now confine themselves to policy; they duplicate, and sometimes triplicate, the work done by the individual services, and they delve into administration, operations and even command.
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> . . . . . .
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> The defense budget is not, and never can be, the product of the Joint Chiefs of Staff or of men in uniform. The size of the budget and, ultimately, the kind of strategic policies it supports are, and must be, if a basic American principle of civilian control of the military is to prevail, the responsibility of civilians. This responsibility lies with the President and his Bureau of the Budget, the National Security Council, the Secretary of Defense and the Congress.[7]

Lieutenant General James M. Gavin, recently retired from the U. S. Army, believes that the time-honored principle of civilian control of defense matters is sound and absolutely fundamental in our democracy. In his recent book, he provides

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[7] Baldwin, op. cit., pp. 91-92, 101-102.

an interesting explanation as to why the numbers of civilians in the Department of Defense have increased.

> With the establishment of the Department of Defense in 1947, an additional layer of civilian management was placed above the services. Furthermore, by the law, military officers are forbidden to be staff officers in the Department of Defense. By its ruling they may be aides or assistants. They do not occupy executive or decision making positions. In order to conduct the affairs of his office, the Secretary of Defense had to bring in increasing numbers of civilian secretaries.
>
> However, there is one layer of civilian participation that is almost entirely overlooked and it is one of the most significant in the Department. It is the group of Civil Service career people who, year in, year out, work in the Pentagon. Within the Armed Forces themselves there are many able Civil Service people who contribute effectively. However, within the services the decisions and final recommendations are made by uniformed people to their civilian Secretaries. In the Department of Defense, there are over three hundred such individuals. They probably have more impact on decision-making in the Department of Defense than any other individual or group of individuals, military or civilian.[8]

In the above statement, General Gavin succinctly described the position of power of Civil Service people in the Department of Defense and in the services. The distinction is a worthy one. The Department of Defense lacks the desirable combination of an operationally experienced military officer reviewing the recommendations of civilians who lack practical experience and conceivably will not have to "live" with their decisions in actual operations.

Concerning the defense budget as finally received by a service, General Gavin states that it is a directed one in every sense. Here is his explanation of the budget process in the Department of Defense.

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[8]James M. Gavin, War And Peace In The Space Age (New York: Harper and Brothers, Publishers, 1958), pp. 165-166.

> However, with the passage of the Nation Defense Act of 1947, a new department was set up that interposed itself between the separate branches of the Armed Forces and members of Congress. Interposed itself, in that, as a member of the Executive Branch of the government, it prepared the budget and directed its support by the Army, Navy and Air Force. It would be most difficult to argue that the Executive should not prepare the budget for submission to Congress. Nevertheless, when the defense requirements are considered and the budget is finally approved, the budget as finally received by a service is a directed one in every sense. Each service then tailors its requirements to fit the money to be provided. In the final analysis, the budget determines the strength and nature of the Armed Forces. And in its final determination, after money is provided by Congress through the Bureau of the Budget and the reapportionment process, even specific items of hardware and projects are approved or rejected by the fiscal officers of the Department of Defense through which they must pass.[9]

By now, there should be little doubt in your mind that the inter-action of civilian decisions and budget considerations does directly affect military planning. Financial considerations, previously deemed to be outside the purview of military planning, now may largely determine future military strategy and our future security. Military planners not only have the perplexing problem of determining how and what is needed to implement the military portion of our national security objectives, but once these decisions are made--then, to help decide the question of can we afford it.

Military Budget Review

A detailed discussion of the budget review process is beyond the scope of this paper. However, a few comments are considered desirable to provide continuity.

Once the President has determined a budget planning basis, the Secretary of Defense divides the total among the

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[9]Gavin, op. cit., p. 171.

services. Each service receives approximately its previous percentage of the total as a starting point. The services are the basic budgeting agencies of the Department of Defense.

The first real job of budget review is at the level of the service secretary. Additional extensive reviews are conducted by both the Department of Defense and the Bureau of the Budget. Once the budget is approved by the Secretary of Defense, it is sent to the Bureau of the Budget and then to the President. He decides finally what the budget is to be and submits it to the Congress. After extensive hearings in the Congress, normally only minor adjustments are made and the budget is finally approved in the form of an ACT making appropriations for the Department of Defense for the specified fiscal year. The next step is the apportionment process, the limitation by the Executive branch of the rate of obligation of appropriated funds.

The complexities of military financial planning and a few of the peculiarities are set forth in the following paragraphs.

The budget problem, as depicted by Mr. Hanson W. Baldwin is this:

> The budget problem, however, is larger than the mere appropriation of funds. It involves the relationship of legislative to executive authority, the constitutional responsibility of Congress to raise and to maintain armed forces, the role of the Bureau of the Budget and of the Secretary of the Treasury, and the apportionment of appropriated funds.
>
> The Secretary of Defense, under present law, has tremendous power within the Pentagon. He has the authority to make decisions, to limit the funds requested by the services from Congress, to approve or reverse recommendations of the Joint Chiefs of Staff. Often

in the past the Secretary has failed to use his authority; sometimes he has made wrong decisions. But he does not lack authority to make decisions.[10]

. . . . . .

Nearly all of the defense budgets of recent years, particularly those of the last two years (the fiscal years 1957-58), represent in final form sharp reductions of the amounts asked by the military. This paring process took place in the Pentagon, at service level and again at Department of Defense level, and in the Bureau of the Budget and the National Security Council.[11]

. . . . . .

And, in recent history, the wings of the Secretary of Defense have been clipped, in a budgetary sense, within the Executive Department by the growing authority of the National Security Council and the Bureau of the Budget. There is no insurance that funds, once appropriated for specific projects or speed-ups, will be quickly available, or even available at all. On several occasions Presidents have withheld moneys appropriated by Congress. And even when money is made available, the long and tortuous apportionment process--the limitation by the Executive branch of government of the rate of obligation of appropriated funds--often causes endless delays and red tape.

In effect, this process is the rejustification by each service, by each organization, and by each project of the moneys already justified to and provided by the Congress, with the Bureau of the Budget and the Department of Defense in the role of judge and jury. This process may control expenditures and it may insure more economy, but it certainly has many built-in delays, and it too often substitutes fiscal judgment for technological and professional judgment.[12]

The role of the Joint Chiefs of Staff in the budget process is described by General Taylor as:

The Joint Chiefs of Staff as a body took no part in the formulation of the 1960 budget--nor had they in previous years. This fact has often surprised the Congress, which always expects the Chiefs of Staff to give them competent advise on the budget. But thus far, the Secretary of Defense has never given the Chiefs

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[10]Baldwin, op. cit., p. 106.

[11]Ibid., p. 102.

[12]Ibid., p. 108.

> as a body a clearly defined role in budget-making. This condition results in part from honest doubt as to the extent to which the Chiefs should be drawn into fiscal matters, in part from a feeling that they would ask for the moon. We had shown the latter tendency no later than June, 1958, when we forwarded to Mr. McElroy an estimate of forces for 1962 bearing a price tag of about $48 billion. This figure was so far removed from fiscal feasibility as viewed by the Secretary that he disregarded the Chief's estimate in preparing the budget guidance.
>
> With the Chiefs out of the picture, the budget was put together in the usual way, each service producing its budget in isolation from the others. Although many earnest discussions of uni-service needs took place between the Secretary of Defense, the Department Secretaries, and their Chiefs of Staff, at no time to my knowledge were the three service budgets put side by side and an appraisal made of the fighting capabilities of the aggregate military forces supported by the budget. This so-called "verticle" (rather than "horizontal") approach to building the budget has many defects and accounts in a large measure for the inability thus far to develop a budget which keeps fiscal emphasis in phase with military priorities. It is not an exaggeration to say that nobody knows what we are actually buying with any specific budget.[13]

During the hearings on the 1960 Defense Department Appropriation Bill conducted by the Defense Department Subcommittee of the Senate Appropriations Committee, Secretary McElroy made the following statement concerning the adequacy of the budget:

> Mr. Chairman, I have described at some length the defense program and budget proposed for the coming fiscal year. It is the product of the best advice and judgment we could bring to bear on a problem for which there are simply no exact answers. It does not include everything that everyone would like, but in the judgment of the Joint Chiefs of Staff the 1960 budget "is adequate to provide for the essential programs necessary for the defense of the Nation for the period under consideration." While each of the service Chiefs has some reservations with respect to the funding of some segments of their respective service programs, they find no serious gaps in the key elements of the budget in its present form.

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[13] Taylor, op. cit., p. 70.

> For my part, I fully agree with the Joint Chiefs of Staff and the President that "this budget assures that essential defense needs are met."[14]

Summary

This chapter briefly summarizes the intricacies of the military planning and budget process. If you have previously found it a difficult subject to understand, at this point you are probably more confused than ever--but many "experts" feel the same way. Very definitely, the process is a complicated one.

The areas of discussion is a so-called "grey" area, in which clear-cut decisions are very difficult to make. The requirements of foreign policy, fiscal policy and military policy are often in conflict and necessitate "soul searching" decisions.

The adequacy of the current budget for military requirements is determined by the judgment of top civilian officials in our government. "This budget assures that essential needs are met." Does anyone really know what these "essential needs" are, both present and in the immediate future, and if the budget actually provides for them?

It appears that military officers can do a far better job in correlating military planning and the budget. Such correlation is essential to assist civilian officials in making vital defense/budget decisions.

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[14]U. S. Congress, Senate, Committee on Appropriations, Hearings Before Subcommittee of Senate Committee on Appropriations. Department of Defense Appropriations for 1960. 86th Cong., 1st Sess., p. 16.

There is no job that we do well that we could not do better, if we spent more time thinking how we might. We all need to know more, think more, and understand better the thinking behind the words of the men with whom we do business.

A budget reviewer's judgment as to the reasonableness of requested funds can be no better than his grasp of the accomplishments to be attained--the end products and the actions required to reach these objectives.

CHAPTER III

MILITARY PLANNING

Military Strategy

A general concept is that military strategy consists of a plan composed of three elements: objectives, power and direction. Broad national objectives are translated into military objectives that are selected as reasonable and attainable. Power consists of forces in being including; numbers, deployment, weapons system, state of readiness and available logistical support. Direction or operational control emanates from a headquarters organized to make sound assignment of forces and to direct these forces to the attainment of objectives.

Military Planning--Before the Department of Defense Reorganization

Prior to 1 January 1959, the Joint Chiefs of Staff functioned as advisors to the Secretary of Defense who provided direction to unified commanders through three executive agents, the service secretaries. The Joint Chiefs of Staff developed a family of emergency/war plans such as the Joint Strategic Objectives Plan (JSOP), described in Chapter II, and the services prepared individual plans to support the plans formulated by the Joint Chiefs.

Obtaining unclassified information concerning the real functioning of the Joint Chiefs of Staff is rather difficult, however, an interesting account of Joint Chiefs of Staff planning was related to Representative Minshall in a House of Representatives subcommittee hearing by General Taylor.

> Mr. Minshall. You do not actually discuss, then, whether or not more B-52's are needed on behalf of the Air Force or whether or not an additional aircraft carrier might be needed, or the numbers of the ground troops in the Army?
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> General Taylor. We do consider such matters in planning. For example, the most important annual planning paper of the Joint Chiefs is the joint strategic objectives plan developed for a period 3 years ahead. The last one we worked on is JSOP-62, or the joint strategic objectives plan for 1962. This plan states an agreed strategic concept which depicts in written form the kind of war or wars we believe our Nation should be prepared to fight. It generally breaks out the requirements for general war, limited war, and cold war in descriptive prose. The Joint Chiefs are in accord on that particular paper.
>
> Following this we should also have appended to this plan the so-called force tabs, which would in effect state that in order to execute the agreed strategy described in the plan, the Army should have so many forces in terms of divisions and support, the Navy so many ships, and the Air Force so many wings of various types. That is where the carriers would be taken into consideration as well as the B-52s. The Joint Chiefs have never reached complete agreement on these force tabs, however. We have come very close to agreeing on many categories of forces, but in all the planning I have been involved in, we have always split on important parts of the force tabs. The result is that the Secretary of Defense is then placed in the unhappy position of having his principal military experts differ as to the kind and quantity of forces necessary to support the strategic concept to which they have all agreed.
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> In this situation, the Secretary does the best he can. He derives such benefit as may be available from the split document, and that presumably aids him in developing the budget guidelines which are stated to the service Departments in terms of ceilings on personnel, both active and Reserves, and in funds. These guidelines then become the framework within which a departmental budget is prepared. Each service then comes forward with its requirements, which ideally would provide the forces to support force

tabs which in turn support the strategy. That is the theory.[1]

Reorganization of the Department of Defense

With the passage of the Department of Defense Reorganization Act of 1958, the organization of the Joint Chiefs of Staff has been strengthened to provide the military assistance required for effective strategic planning and operational control. The former committee system of the Joint Staff has been replaced by seven directorates, including one for operations.

The new chain of command, running directly from the President and the Secretary of Defense through the Joint Chiefs of Staff to unified and specified commanders has been established. The functions of the Joint Chiefs of Staff and of military departments have been revised to reflect this new chain of command for the operational direction of the Armed Forces. All of the unified and specified commands were transferred to the new command structure by January 1, 1959 and concurrently the military departments were relieved of the responsibilities they previously held as executive agencies for these commands.

The number of officers in the Joint Staff was doubled to provide the Secretary of Defense with the military staff support that he would need in exercising the operational control over the new unified and specified command structure.

This strengthening of the Joint Chiefs of Staff should facilitate better planning and provide coordinated operational

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[1]U. S. Congress, House, Subcommittee of the Committee on Appropriations, Hearings, Department of Defense Appropriations for 1960, 86th Cong., 1st Sess., 1959, pp. 433-434.

control of the Army, Navy and Air Forces. Only experience will tell whether the reorganizations will correct reported weaknesses in determining standards of force sufficiency and related budgetary matters.

Decision Areas

Civilian-military relationships in military planning and budgeting are essential and widely accepted in our form of government. But the unresolved problem area is to determine who is responsible for what decisions.

Our military planners should utilize every available source of assistance from the scientific and business worlds, including operations research and electronic data processing, in developing and analyzing national defense plans and in determining supporting force requirements attainable within a reasonable defense budget. A positive statement of operational force requirements could conceivably strengthen our military capabilities and would greatly assist civilian officials in making decisions in both defense and budget matters.

This concept envisions a Joint Chiefs of Staff determination of major forces needed for various levels of military capabilities and functions. Experienced military officers should have the best professional knowledge to determine standards of sufficiency governing the size and composition of forces needed to carry out military plans. Next, any form of military power has to be translated into expensive "hardware" and thoroughly trained manpower before it can be effectively used. Correlation of stated force requirements with their cost would relate them

directly to the defense budget. Both civilian officials and military officers would be able to more readily comprehend the direct effect of the budget and its influence on our present and future military forces.

The net effect of our existing procedures of not clearly stating major force requirements is that too many people make decisions, not based on facts, but merely on what they think is best. Unfortunately the emphasis is strongly biased toward reducing the defense budget. Military officers must fight a unified offensive to restore the "operational flavor" to military budgeting and to reverse the ever increasing emphasis on good management and increased fiscal accounting. We now have tight financial control, but hazy ideas as to how operations are affected.

Decisions affecting our military capabilities must not pass by default to budgeters because of a lack of agreement and indecisiveness concerning force levels by our top military officers.

All defense budgets include decisions based on certain calculated risks. Only by means of a thorough and careful analysis of all available and pertinent facts can the level of risk be reduced to the absolute minimum. Military planners developing force requirements must have specific goals in mind. The determination of major forces needed for national security and their level of readiness at any particular time is a complicated and by no means a precise process--and a continuing one.

Force Requirement Considerations

The majority of military functions, such as atomic retaliation, air defense, limited warfare, strategic airlift and sealift require the contributions of two or more services. Even antisubmarine warfare (ASW), previously a sole Navy responsibility, now may require close coordination with the Continental Air Defense Command (CONAD) in defending continental United States against potential enemy launched submarine missiles.

In the past, forces for these functions were determined by the individual services according to their general mission and the end result normally review in a vertical fashion at the Department of Defense level. What is needed is a careful horizontal review and scrutiny by the Joint Chiefs of Staff to determine whether each function is properly supported by the appropriate forces of all contributing services.

The questions of proper balance and sufficiency are ever present in the area of major force requirements and weapon systems. Obsolete systems must be eliminated. Competing types must be evaluated and marginal types dropped. We can only afford to concentrate our efforts on the most effective and promising weapon systems to increase our military capabilities. The basic decisions and recommendations in these and function areas must be made by the Joint Chiefs of Staff.

Atomic retaliatory forces.--Basically does the United States have sufficient deterrent power to make it supremely uninviting for our potential enemy to launch a nuclear war? What is the best "mix" of deterrent power made up of long-range

bombers, intermediate range missiles and ICBMs?

Strategic striking forces have been given high priority by the Joint Chiefs of Staff and budget allocations, hence are sought by each of the services. Each of the weapon systems is very expensive. The situation is further complicated by the fact that these forces could be used in and be launched from many parts of the world and in many theaters. The Joint Chiefs of staff must control and thoroughly evaluate the strategic striking force capabilities of the Air Force and the Navy. This function is increasing in importance because of the introduction of new missiles and the very high cost of these new weapon systems. The overall capabilities of the ICBMs, IRBMs including the POLARIS must be carefully evaluated and planned employment closely coordinated.

Instead of each service determining forces to carry out its missions, the Joint Chiefs of Staff should make firm recommendations to the Secretary of Defense. Their considerations should include:

1. How many weapons do we need to destroy enemy targets?

2. What second strike capability is needed?

3. What combination of forces comprises the best "mix" of strategic forces?

4. The vulnerability of weapon/missile launching systems.

5. The time-phasing of available and future weapons/missiles.

6. The overall cost of the various weapon systems--not merely the weapon itself.

These considerations will require "soul searching" and hard decisions, but someone has to make them. The Joint Chiefs of Staff should be in the best position to decide what is needed and when.

Continental Air Defense.--A most expensive and rapidly changing category of forces. The North American Air Defense Command (NORAD) includes the Continental Air Defense Command (CONAD) and is composed of forces of the Air Force, the Army, the Navy and Canada. It is doubtful whether the total cost of even operating CONAD has ever been compiled. Like other weapon systems, rapid changes in technology may render many NORAD installations and weapon systems obsolete by the time they are fully established or shortly thereafter. For example, the Air Early Warning System as originally planned included the DEW Line, seaward extension by naval forces, piloted intercepter aircraft, SAGE System (designed in 1954), NIKE installations and so forth. Now, as rapidly as possible, this system is being replaced by the Ballistic Missile Early Warning System (BMEWS) including anti-missile missiles. The next development will be space satellites.

Obsolete systems and forces must be eliminated as rapidly as possible. For example, is the military value of the Naval Air Early Warning Squadron's continuous coverage in the seaward extensions of the Air Early Warning Lines both in the Atlantic and the Pacific worth the cost of operating it? This operation is expensive and requires considerable numbers of trained personnel that could conceivably be more profitably

employed in other areas such as ASW--both men and dollars. This decision and others concerning air defense should be made by the Joint Chiefs after a careful review of facts submitted by the Commander North American Air Defense Command.

Antisubmarine Warfare (ASW).--The basic function includes multi-purpose force employments which should be clearly differentiated in terms of requirements; i.e., defense of continental United States against missile launching submarines; protection of naval striking forces, mobile logistic support force and ocean convoy from the submarine threat. Antisubmarine warfare constitutes a real challenge and estimated forces far exceed those which can be made available. Hence, decisions must be made regarding the degree of emphasis on various ASW missions based on the concept of a future general war. If we logically give the Soviets the capability to develop a weapon system equivalent to or superior to our POLARIS weapon, then antisubmarine defense of continental United States deserves high priority. Adequate forces, detection systems and command-control centers must be provided similar to our CONAD system. Currently the trend is to consider ASW in general overall terms, with little emphasis as to the assignment and capabilities of ASW forces for specific missions.

Limited Warfare.--Plans for limited or local war situations are probably the most difficult to formulate. Contingency plans for anticipated limited war situations should be developed with basic forces to support the various plans indicated. These forces will provide the estimated requirements

as to the amount of support required by the Combined Commanders in the Atlantic and Pacific and the capabilities of the services to provide needed forces. It is realized that all desired forces cannot be provided at the same time for all contingencies. But, a review of these plans for specific areas will assist in determining how many forces can be furnished without weakening our strategic striking forces and continental United States ASW defense forces.

Additional considerations for the Joint Chiefs in reviewing this function include determining whether we have an adequate supply of conventional weapons and the proper aircraft to deliver them. Or will commanders be faced with using a $4-5 million dollar aircraft to deliver a 500 pound bomb or to make rocket runs in close air support of our ground troops.

Another feasibility study entails the cost of airlifting squadrons of the Tactical Air Command to a limited war area and providing support facilities overseas versus the cost of providing similar air support by navy carriers. A realistic study of these cost figures should be made in various geographic areas of the world that are potential trouble areas.

Airlift and Sealift Requirements.--Of all services, both for limited war situations and on D-day of a general war, should be carefully estimated and consolidated. These figures should then be compared with transport forces available. It is very doubtful that anyone knows what the estimated total requirements are and what lift capabilities exist. Matching requirements with capabilities and time-phasing is most important. Once the

figures are compiled, a decision must be made as to which services have priority on available sea/air transportation, or whether additional forces should be procured. Again this involves costs.

Mobilization and Reserve Policies.--This area is undoubtedly a fruitful area for many "hard decisions" that can save money, but would be politically unpopular. If the concept of a short war is accepted, then the military value of mobilization potential and reserve forces decreases rapidly. This change may be even more dramatic as we enter the advancing missile-space era. The potential of reserve personnel in many areas, especially aviation, is questionable. The cost of training and providing modern scarce equipment for them must be weighed against the potential value of and need for these forces. Once again, the need for positive recommendations by the Joint Chiefs of Staff.

What constitutes realistic military mobilization requirements? Should we state requirements for a limited war situation and plan to initially fight a general war with forces in being?

Mobilization resources and reserve forces expend valuable dollars. How much can we afford? Needless to say, any changes in reserve policies will invoke considerable political interest and possible opposition.

Support Forces and Facilities.--The level of support forces and facilities is directly related to the operational force level. This determination can be made by the individual

services once the composition and mission of their respective operational forces is determined by the Joint Chiefs of Staff. A summary of the service support forces and facilities, together with their cost, would be forwarded to the Joint Chiefs for a careful review as to adequacy to meet minimum requirements.

Summary

The passage of the Department of Defense Reorganization Act of 1958 strengthened the organization of the Joint Chiefs of Staff by providing for more effective strategic planning and centralized operational control of all forces. The advantages of centralized planning include: a determination of over-all objectives, unanimous decisions as to force levels and weapon systems, assignment of forces and missions to the services, and provision for centralized control with decentralized execution. This control concept is most important in a general war situation, as no one center can control world wide operations. Further there is the almost certain probability that considerable communications would be knocked out. With an effective centralized plan, operations of all forces could be coordinated and outlined in advance together with assignment of missions and forces to specific areas. If and when unexpected hostilities should commence, our military forces would be ready to carry out their tasks without further direction from the Joint Chiefs of Staff.

If the Joint Chiefs determine over-all force requirements and correlate force levels/functions with their estimated

cost, needed background information will be available for civilian officials reviewing and making decisions affecting the defense budget.

Effective planning by the Joint Chiefs of Staff includes developing a family of war plans which state requirements and contain force tabs for a general war and limited war situations. The determination of forces should be by unanimous agreement as to what forces are to be provided by each service. Additional force considerations to include a time-phased program for modernization or replacement of major units as required. Every attempt should be made to eliminate obsolete "hardware" and marginal tasks for services forces as rapidly as possible. The Joint Chiefs are in a position to determine what forces are to be provided and to then take a horizontal look at the units the services are actually providing.

A careful study should be made and an attempt made to summarize force requirements by major functions. The details to include a break-down by services, weapon systems costs, and the needs for various levels of readiness and/or capabilities in the functional areas. Once forces have been approximately determined and a meaningful "price tag" placed on them, we will have a much better understanding of our military programs and the relative costs. Budget personnel will have improved guidelines to use in the preparation and review of the defense budget and a far better understanding of where the money is to be spent and why. For example, various categories of military capabilities in specific functions and at various levels of

capabilities will cost this amount. If the amount is reduced from the defense budget, here is how it will effect our military force operational capabilities. This is one of the budget details that can not be determined during a review of our present budget. More important, it is difficult to determine and little effort is made to find out what defense we are actually getting once the budget has been revised and finally approved.

CHAPTER IV

MILITARY OPERATIONS RESEARCH

What is it?

Military Operations Research is the application of scientific method to the study of operational problems in order to give military commanders a quantitative basis for decision. It consists of observing and classifying data, developing theories that fit the observations and using them to predict the effects of changes in conditions or procedures. Its functions are to define the decision area, narrow the scope and to test it in terms of expected results.[1]

Why Operations Research is needed

Much as people like a precise, "one-two-three" or a "two plus two equals four" solution to difficult problems, our problem area is a complex one with multiple issues which are not readily simplified. Military planning--force requirements--the defense budget can not be considered independently as they are closely interrelated and must be treated as a whole. The summary of Chapter III stated a desirable, but rather utopian concept which is not fully attainable in the military planning and budget process. As yet, no person or system has been able

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[1]Conrad Abhau, "Operations Research, Aid To Military Decisions," U. S. Naval Institute Proceedings, August, 1959, p. 137.

to neatly resolve the many facets of the military defense budget.

The requirements approach, which attempts to determine force levels by functions, secures administrative simplicity only at the cost of treating interrelated problems as if they were independent. It is a convenient approach that disposes of analytic difficulties. With few exceptions, military critics tend to follow this same approach and generally agree with this condensed and oversimplified sequence of military planning. First, based on national objectives, determine what kind of military capabilities are needed. Second, determine how these capabilities are to be achieved. Third, appraise probable enemy capabilities, determine how much must be provided. And in recent years, a fourth stage, budget considerations deemed to be outside the purview of the military. Budget constraints are imposed, constraints that are accepted uncritically when the threat of "national bankruptcy" is invoked. As a consequence, requirements are cut--the results of the third planning stage alone undergo revisions--and revised actual military capabilities emerge at the end of the planning cycle.[2]

In oversimplifying the issues and following the classic military approach, most critics refrain from discussing other important factors which should be included in defense budget dissertations. For example, the basic concept of military determinations stated in the United States Constitution which

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[2]Malcolm W. Hoag, Some Complexities In Military Planning, Rand Corporation Paper No. P-1531 (Santa Monica, Calif.: Rand Corporation, 1958), pp. 3, 4.

provides for civilian control over the size and scope of our military forces by the President and the Congress. Other budget influences are Congressional actions, affected by political innuendoes and numerous pressure groups. These and other factors constitute the "facts of life" in our democratic process. In many instances relating to budget issues, the military departments are innocent "whipping boys"--cast in the role as the instigators of all of the problems.

If all military "needs" could be fully met, the requirements approach might be the answer and our problem would be practically solved. However, there is little doubt that this will never happen, especially in peacetime.

Application

In the military planning/operations/budget area, operations research has many important applications. For many years war-gaming has been recognized as the most realistic way of testing the effectiveness of war plans, strategies, forces, weapons, and so forth. The present use of high-speed electronic computers in scientific war-gaming techniques, permits the utilization of a tremendous amount of data. Hence, when one considers the magnitude of facts that the Joint Chiefs of Staff must evaluate and weigh in reaching decisions, the advantages of an electronic fact finder and fact analyst is readily apparent.

The application of this technique to the evaluation of vital problems such as force structure, weapon system evaluation and the analysis of war plans should provide a solid intelligent

basis for important decisions. Additional facts can be generated that will contribute to detailed cost-effectiveness studies of various force structures and weapon systems for use in budgetary considerations.

Operations Research Methods

The methods may be divided into analytic, gaming and simulation techniques. Also, tremendous amounts of data can be stored, sorted and quickly summarized according to needs. The analytic approach involves the development of a mathematical problem, representative of the real situation, that can be solved either exactly or approximately. The processes are those of differential equations, probability, statistics and the theory of games. Both educational and analytical war gaming procedures have been used by the services for a great many years. Opposing commanders are confronted with an environment in which they exercise professional judgment in reaching command decisions. They fight the war in a most realistic manner and detailed histories of exactly what happened to all aircraft, ships, missiles, bases, targets and war-supporting resources are prepared for analysis.

Old Idea--Expanded Use

Operations Research is not a new idea in the military services. Both the Air Force and the Navy have used similar study groups and techniques for research and development since about 1942. One of the Navy programs at the Massachusetts Institute of Technology developed into the Navy's Operations Evaluation Group. The Operations Analysis Office of the Air

Force grew out of various units established in the fall of 1942. By 1948 the Air Force had created the Rand Corporation, a non-profit institution specializing in problems of research and development. The Air Battle Division of the Deputy Chief of Staff for Plans and Programs, U. S. Air Force, utilizes electronic computer war gaming techniques. The Army has its Operations Research Office and the Weapons System Evaluation Group is located in the Department of Defense.

Undoubtedly these Operations Research groups do provide valuable information used in military planning. At this writing it is not known whether any study has been made to determine the degree of coordination of the various programs or the results of the programs at the Joint Chiefs of Staff level. If a consolidated program is in effect, perhaps it can be improved as the variables of the problem are constantly changing and new ideas are needed. With proper guidance as to desired programming, the studies and reports of these various research groups could bring all phases of the subject problem into focus for the Joint Chiefs of Staff. Further, the Joint Chiefs of Staff could refer any of its special problems or needs for summarized factual information to one or more of these groups for study or tabulation. With computers, simulated changes can be introduced and results estimated. This information/analysis system would provide the Joint Chiefs of Staff with a look at the consolidated problem and provide a means of measuring progress toward goals and objectives.

Problems to be Studied

This brief paper can only treat with a few suggested problems or basic ideas applicable to Operations Research. The complex issues of the military planning/budget processes provide infinite possibilities. A few examples are submitted as feasible studies for Operations Research Groups in providing assistance to the Joint Chiefs of Staff in their deliberations.

Possibly the issue at the heart of the problem is reasonable resource allocation. From these three words a multitude of discussions, bordering on arguments, emanate. Achieving reasonable agreement by the majority of parties involved is similar to collecting the contents of an over turned "can of worms." Returning to the problem, one test of a sensible allocation is whether the gain from employing an additional resource unit in one use outweighs the loss occasioned by diverting it from an alternative use.[3] Or stating it another way, what is the best combination of bombers and missiles to achieve certain military objectives.

In a determination of retaliatory capabilities, objectives can be stated in terms of a stipulated degree of confidence in the ability to destroy a specific list of enemy targets. This defines a rather precise objective against which fulfillment by alternative means can be evaluated and various combinations of forces determined.[4] The cost of one system can be compared with another in terms of which offers the lowest cost for accomplishing the objectives.

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[3]Hoag, op. cit., p. 9. [4]Ibid., p. 10.

This information should assist military planners in determining various levels and types of strategic retaliatory capabilities, including expenditures required. Another related task is to fit it into the overall defense budget figure with other competing military capabilities. Force allocations are variable to a degree depending upon the size of the budget. The summarized results of these studies would conceivably provide some of the best available information for top level officials faced with making tough decisions.

Similar analysis studies, by means of appropriate programs developed by Military Operations Research, can be made for the majority of military functions (continental air defense, antisubmarine warfare, etc.) discussed in the Force Requirement Considerations paragraph of Chapter III, page 33.

In regard to new programs, such as improvements in the air defense system, an analysis could be made to determine military returns from increments of installation and upon completion. The prospective installation and operating costs could be determined. Usually they all end up far higher than originally planned--either by clever intent or because of uncontrollable causes.

It is a mistake for Operations Research to examine only important expensive systems and to overlook additional elements whose role and costs are relatively small. The collective effect of many small items can have considerable influence on both the military capabilities and/or the budget problem.

To achieve effective military capabilities, it is

essential to explore widely different allocations of capabilities to see how alternatives fare. There is no one solution, likewise the enemy threat is not fixed. The problem is one of balance between conflicting considerations. Balance cannot be tested for merely one budget level, but should be tested at many sharply different levels. The resulting "facts" could provide a useful corrective to many defense discussions. Military alternatives must be compared in ways that are neither simple nor obvious.

Summary

Functions of Military Operations Research are to define the decision area, to narrow the scope and to test it in terms of expected results. Objectives are to clarify the relation between numerous alternatives, to determine their effects and to indicate those which measure up best. Operations Research is hardly a cureall for every defense decision ill, nor a source of automatic decisions. It is limited to a study of tangible and measurable factors.

To date, no person or system has been able to neatly resolve the many facets of the military defense budget. But, decisions have to be made. The Joint Chiefs of Staff must evaluate war plans and related vital problems of force structure and weapon systems. Detailed cost-effectiveness studies of military operations are needed for use in budgetary considerations. It is an accepted fact that sufficient resources or dollars are not forthcoming to satisfy all military needs, especially in peacetime. Even if substantial defense budget

increases could be justified, they would be difficult to implement in our country today. The budget is tied to an economic base and as a result it can't be jiggled too much.

The accepted military approach to planning and budgeting is familiar--convenient--and has been successful in the past. But it is now largely outmoded in view of the large volume of complex data that must be collected or estimated and evaluated in order to reach decisions. New sophisticated concepts and methods made possible by Operations Research offer far greater potentials than the old system, largely limited to pouring over military writings.

This suggestion is not intended to be a get on the "band wagon" approach, with an electronic computer, so common in both business and government circles during the past few years. Computers are not miracle machines or "thinking" machines. They are a device for massaging data with tremendous speed as a major virtue. It is true that large amounts of information can be compiled by manual means, but how accessible is it and how long does it take. There is little doubt that an advanced data processing system can effectively filter out essential information and present it in a more timely fashion and in a more useful form.

The idea of operations research in the military services is not new. But, existing programs should be coordinated and employed so that individual and combined service capabilities and related costs are brought into sharper focus at the Joint Chiefs of Staff level. The merits of systematic analysis and of

an electronic fact finder to assist in the decision making process should be worthy of serious consideration and practical application.

In my opinion, Dr. Brodie has succintly summarized military operations research as follows:

> The universe of data out of which reasonable military decisions have to be made is a vast, chaotic mass of technological, economic, and political facts and predictions. To bring order out of the chaos demands the use of scientific method in systematically exploring and comparing alternative courses of action. When the method is true to its own scientific tenets, it is bound to be more reliable by far than the traditional alternative method, which is to solicit a consensus of essentially intuitive judgments among experienced commanders. The new method does not throw out the best of the old, for it attempts to incorporate in an orderly fashion whatever is good in strong intuition, and the military commanders still consider and accept or reject its findings.[5]

There is no <u>one</u> easy or practical solution to the military planning and budget problem. This field presents a challenge and opportunity for all persons interested in providing optimum security for our country, compatible with other major interests.

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[5]Bernard Brodie, <u>Strategy In The Missile Age</u> (Princeton: Princeton University Press, 1959), p. 407.

CHAPTER V

SUMMARY

Initially in this paper, some opinions of top-level civilians and military officers were quoted to establish a sound basis for this discussion. Most of the basic considerations, the complexities and the inter relationship of the military strategic planning and the budget process were set forth.

The comments and criticisms quoted, quite well establish the parameters of the problem area. As you have read, the scope is broad and complex. Certain pertinent comments are reiterated for emphasis.

Mr. Baldwin stated that top-command civilians are unwilling to make decisions and to accept responsibility, after due advice from the nation's top-ranking military advisers.

Mr. Kissinger apparently believes that most of the fundamental thinking in the field of strategy is now done by scholars who, unencumbered with an almost useless tradition, have sought to fill an intellectual void.

General Taylor contends that weaknesses in the Joint Chiefs of Staff system have left the planning of our military strategy to civilian amateurs and the budget-makers. He also stated that the Secretary of Defense through the use of

budgetary guidelines has become the true artisan of our military strategy without necessarily foreseeing the end product.

Mr. Lippman questioned the qualifications of the Secretary of Defense to make decisions. How does a man who has spent the first fifty years of his life away from strategic problems go to the Pentagon, hang up his hat, sit down at the Secretary's desk, and make the decisions which he is supposed to make?

Representative Mahon expressed a lack of confidence in the Joint Chiefs as an organization and as to the effectiveness of their planning. He believes they are good men, but that they have not been able to function very effectively.

There is unanimity of opinion as to the increasing importance of the federal budget and its effect on military strategy. At least two major segments of the problem are apparent. How much defense can we afford? How military strategic planning can be effectively correlated with the budget by top-level civilians and military officers to provide optimum security for our country.

Basis For Military Planning And Budgeting

The President, National Security Council, Bureau of the Budget, Department of Defense are the major participants in the military strategic planning/budget process.

The intricacies of the process plus the large number of government officials interested and involved in the procedures, altogether contribute to make it a most complicated and difficult process to comprehend. There are many so-called "grey"

areas, in which clear-cut decisions are difficult to make. It is also a problem to determine who should make them.

The adequacy of the current defense budget for military requirements is determined by the judgment of top civilian officials in our government. "This budget assures that essential needs are met." It is not readily apparent that anyone really knows what these essential needs are or if the budget actually provides for them.

Military officers can do a better job in correlating military planning and the budget to assist civilian officials in making vital defense/budget decisions. It must be remembered that a budget reviewer's judgment as to the reasonableness of requested funds can be no better than his grasp of the accomplishments to be attained.

Military Planning

The passage of the Department of Defense Reorganization Act of 1958 strengthened the organization of the Joint Chiefs of Staff by providing for more effective strategic planning and centralized control of all forces. If the Joint Chiefs determine over-all force requirements and correlate force levels/functions with their estimated cost, needed background information will be available for civilian officials reviewing and making decisions affecting the defense budget. Further, the Joint Chiefs of Staff are in a position to take a horizontal look at the forces the individual services are actually providing and to determine their sufficiency to meet our military requirements.

The Joint Chiefs should attempt to summarize force

requirements by major functions, including a break-down by services, various levels of capabilities and approximate costs of weapons systems and forces as related to the functions. The goal is to provide improved military capabilities and better information concerning where our defense dollars are spent and why. In our existing defense budget process, there is an urgent need to realistically determine the effect of various budget levels on the operational capabilities of our military forces.

Military Operations Research

Operations Research is the application of scientific method to the study of operational problems in order to give military commanders a quantitative basis for decision. Its functions are to define the decision area, to narrow the scope and to test it in terms of expected results. Operations Research is merely an aid, not a device to provide the answer to military problems. There is no one solution or even several specific solutions. To achieve effective military capabilities, numerous alternatives and widely different allocations of capabilities must be explored to determine a proper balance between conflicting considerations. The Joint Chiefs of Staff must evaluate war plans and relate vital problems of force structure and weapon systems. Detailed cost-effectiveness studies of military requirements are needed for budgetary considerations. Existing operation research programs of the services should be coordinated and employed so that individual and combined military capabilities and related costs are brought into sharper focus at the Joint Chiefs of Staff level. The merits of systematic analysis and of an electronic

fact finder to assist in the decision making process should be worthy of serious consideration and practical application. As stated by Dr. Brodie, the new method does not throw out the best of the old, for it attempts to incorporate in orderly fashion whatever is good in strong intuition, and the military commanders still consider and accept or reject its findings.

General Comments

The majority of military officers can no longer avoid involvement in the challenging subject of the defense budget. Whether at the Washington level, at field activities or with the operating forces, budget considerations are increasing in importance. The competition for limited funds is becoming keener every day. Our future military operating forces are largely dependent upon today's budget decisions made mainly by civilian officials. By knowing as much as possible about their financial considerations, you can help them make militarily sound budget decisions. It is far easier for an officer to acquire financial knowledge than it is for a budget reviewer to become a military operator.

There is no job that we do that we could not do better, if we spent more time thinking how we might. We all need to know more, think more, and understand better the thinking behind the words of the men with whom we do business.

Above all, military officers must develop conceptual vision in military planning--operations--and budgets. The trend of too much emotion and not enough facts in the budget process must be reversed.

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